

SEQUENCE LISTING

<110> Donoho, Gregory
 Scoville, John
 Zambrowicz, Brian
 Cullinan, Emily
 Kieke, James A.
 Hu, Yi
 Turner, C. Alexander Jr.
 Walke, D. Wade

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 Polynucleotides Encoding the Same

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<151> 2000-03-06

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<151> 2000-05-16

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 Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe
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 Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg
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 Arg Lys Leu Met Gln Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala
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 Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly
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 Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser
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 Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
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 Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu
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 Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
 180 185 190
 Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu
 195 200 205
 Lys Asp Leu Ile Leu Ala Leu Gly Val Leu Ala Gln Ser Arg Pro Val
 210 215 220
 Ser Arg His Ser Arg Val Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala
 225 230 235 240
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 245 250 255
 Ile Leu Leu Ser Trp Leu Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp
 260 265 270
 Ala Lys Gly Trp Ile Phe Asn Val Val Pro Trp Leu Val Ala Ile Pro
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 Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His Ser Ile Asn Gln Gly
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Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe
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Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg
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Ile Gly Gly Glu Lys Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser
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Ile Thr Ala Val Thr Pro Leu Leu Ala His Leu Ser Ser Ala His Leu
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Ala Phe Met Thr Phe Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val
      115      120      125
Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser
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Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly
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Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly
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Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val
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Trp Tyr Val Tyr Arg Ser His Pro Gly Leu Gly Cys Pro Gly Pro Lys
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Pro Ala Gly Val Gln Ala Gln Gln Ser Pro Leu Glu Thr Ala Leu Pro
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Glu Ala Cys Cys Leu Gly Ser Arg Arg Leu Pro Ala Leu Cys Ser Leu
      225      230      235      240
Leu Leu Leu His Pro Pro Leu Leu Ala Ala His Leu Leu Arg Gly Asp
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65 70 75 80
Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser
85 90 95
Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His
100 105 110
Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met
115 120 125
Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser
130 135 140
Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
145 150 155 160
Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu
165 170 175
Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
180 185 190
Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Ser His Pro Gly Leu
195 200 205
Gly Cys Pro Gly Pro Lys Pro Ala Gly Val Gln Ala Gln Gln Ser Pro
210 215 220
Leu Glu Thr Ala Leu Pro Glu Ala Cys Cys Leu Gly Ser Arg Arg Leu
225 230 235 240
Pro Ala Leu Cys Ser Leu Leu Leu His Pro Pro Leu Leu Ala Ala
245 250 255
His Leu Leu Arg Gly Asp Leu Pro Arg Arg Gln Gly Leu Asp Leu Gln
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cacagcagag	tccctggag	acggctcttc	cggaagccct	ctgtctgggc	agccgtctgc	720
tccagacctt	ctgcagcctg	ctccttcttc	atcctctctc	ctgggtctgc	caacttcttc	780
gaggagacct	tcccgcagc	caagggtctg	atcttcaag	tggttctctg	gtgtgtggcg	840
attccggcca	gtctatttcag	cggtttcttc	tctgatcatc	tcataaatca	gggttacaga	900

gccatcacgg	tcggaagct	catgcagggc	atggggccttg	gcctctccag	cgtctttgct	960
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ggcctccaga	ccttcaacca	cagtggcatt	tcctgttaaca	tcaggagactt	ggcccgctcc	1080
tcgcccggct	ttctgtttgg	tgtggccaac	acagccgggg	ccttggcagg	tgtcgtgggt	1140
gtgtgtctag	gcggctactt	gatggagacc	acgggctcct	ggacttgct	gttcaacctt	1200
gtggccatca	tcagcaacct	ggggctgtgc	accttctcgt	tgtttgagaca	ggctcagagg	1260
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<210> 12

<211> 430

<212> PRT

<213> Homo sapiens

<400> 12

Met	Thr	Leu	Thr	Ser	Arg	Arg	Gln	Asp	Ser	Gln	Glu	Ala	Arg	Pro	Glu
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Cys	Gln	Ala	Trp	Thr	Gly	Thr	Leu	Leu	Leu	Gly	Thr	Cys	Leu	Leu	Tyr
		20						25					30		
Cys	Ala	Arg	Ser	Ser	Met	Pro	Ile	Cys	Thr	Val	Ser	Met	Ser	Gln	Asp
		35					40					45			
Phe	Gly	Trp	Asn	Lys	Lys	Glu	Ala	Gly	Ile	Val	Leu	Ser	Ser	Phe	Phe
		50				55					60				
Trp	Gly	Tyr	Cys	Leu	Thr	Gln	Val	Val	Gly	Gly	His	Leu	Gly	Asp	Arg
		65			70				75					80	
Ile	Gly	Gly	Glu	Lys	Val	Ile	Leu	Leu	Ser	Ala	Ser	Ala	Trp	Gly	Ser
			85					90						95	
Ile	Thr	Ala	Val	Thr	Pro	Leu	Leu	Ala	His	Leu	Ser	Ser	Ala	His	Leu
			100					105						110	
Ala	Phe	Met	Thr	Phe	Ser	Arg	Ile	Leu	Met	Gly	Leu	Leu	Gln	Gly	Val
			115				120						125		
Tyr	Phe	Pro	Ala	Leu	Thr	Ser	Leu	Leu	Ser	Gln	Lys	Val	Arg	Glu	Ser
			130			135					140				
Glu	Arg	Ala	Phe	Thr	Tyr	Ser	Ile	Val	Gly	Ala	Gly	Ser	Gln	Phe	Gly
			145			150				155				160	
Thr	Leu	Leu	Thr	Gly	Ala	Val	Gly	Ser	Leu	Leu	Leu	Glu	Trp	Tyr	Gly
			165				170							175	
Trp	Gln	Ser	Ile	Phe	Tyr	Phe	Ser	Gly	Gly	Leu	Thr	Leu	Leu	Trp	Val
			180				185							190	
Trp	Tyr	Val	Tyr	Arg	Tyr	Leu	Leu	Ser	Glu	Lys	Asp	Leu	Ile	Leu	Ala
			195				200					205			
Leu	Gly	Val	Leu	Ala	Gln	Ser	Arg	Pro	Val	Ser	Arg	His	Ser	Arg	Val
			210				215					220			
Pro	Trp	Arg	Arg	Leu	Phe	Arg	Lys	Pro	Ala	Val	Trp	Ala	Ala	Val	Val
			225			230				235				240	
Ser	Gln	Leu	Ser	Ala	Ala	Cys	Ser	Phe	Phe	Ile	Leu	Leu	Ser	Trp	Leu
				245					250					255	
Pro	Thr	Phe	Phe	Glu	Glu	Thr	Phe	Pro	Asp	Ala	Lys	Gly	Trp	Ile	Phe
			260				265							270	
Asn	Val	Val	Pro	Trp	Leu	Val	Ala	Ile	Pro	Ala	Ser	Leu	Phe	Ser	Gly
			275				280						285		
Phe	Leu	Ser	Asp	His	Leu	Ile	Asn	Gln	Gly	Tyr	Arg	Ala	Ile	Thr	Val
			290				295					300			
Arg	Lys	Leu	Met	Gln	Gly	Met	Gly	Leu	Gly	Leu	Ser	Ser	Val	Phe	Ala
			305			310				315				320	
Leu	Cys	Leu	Gly	His	Thr	Ser	Ser	Phe	Cys	Glu	Ser	Val	Val	Phe	Ala
				325					330					335	
Ser	Ala	Ser	Ile	Gly	Leu	Gln	Thr	Phe	Asn	His	Ser	Gly	Ile	Ser	Val
			340					345					350		
Asn	Ile	Gln	Asp	Leu	Ala	Pro	Ser	Cys	Ala	Gly	Phe	Leu	Phe	Gly	Val
			355				360						365		
Ala	Asn	Thr	Ala	Gly	Ala	Leu	Ala	Gly	Val	Val	Gly	Val	Cys	Leu	Gly
			370				375					380			
Gly	Tyr	Leu	Met	Glu	Thr	Thr	Gly	Ser	Trp	Thr	Cys	Leu	Phe	Asn	Leu

385 390 395 400
Val Ala Ile Ile Ser Asn Leu Gly Leu Cys Thr Phe Leu Val Phe Gly
405 410 415
Gln Ala Gln Arg Val Asp Leu Ser Ser Thr His Glu Asp Leu
420 425 430

<210> 13
<211> 12311
<212> DNA
<213> homo sapiens

<400> 13
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cgctccacga tgcccatctg caccgtctcc atgagccagg acttcggctg gtactgagcc 180
gaggccggca tcgtgctcag cagcttcttc tggggctact gctgtgacaca ggttgtgggg 240
ggccacctcg gggatcggat tgggggtgag aaggtcatcc tctgtgcagc ctctgctcgg 300
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atgaccttct caccgatctc catgggcttg ctccaagggg ttactctcc tgccttgacc 420
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tggtctggcca ccttctctga ggagaccttc ccgacgcca agggctggat ctcaacagt 840
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<210> 14
<211> 436
<212> PRT
<213> homo sapiens

<400> 14
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Gln Trp Ser Arg Pro Glu Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu
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Gly Thr Cys Leu Leu Tyr Cys Ala Arg Ser Ser Met Pro Ile Cys Thr
35 40 45
Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile
50 55 60
Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly
65 70 75 80
Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser
85 90 95
Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His
100 105 110
Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met
115 120 125
Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser
130 135 140
Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
145 150 155 160
Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu

165 170 175
 Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
 180 185 190
 Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu
 195 200 205
 Lys Asp Leu Ile Leu Ala Leu Gly Val Leu Ala Gln Ser Arg Pro Val
 210 215 220
 Ser Arg His Ser Arg Val Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala
 225 230 235 240
 Val Trp Ala Ala Val Val Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe
 245 250 255
 Ile Leu Leu Ser Trp Leu Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp
 260 265 270
 Ala Lys Gly Trp Ile Phe Asn Val Val Pro Trp Leu Val Ala Ile Pro
 275 280 285
 Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His Leu Ile Asn Gln Gly
 290 295 300
 Tyr Arg Ala Ile Thr Val Arg Lys Leu Met Gln Gly Met Gly Leu Gly
 305 310 315 320
 Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His Thr Ser Ser Phe Cys
 325 330 335
 Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn
 340 345 350
 His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala
 355 360 365
 Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu Ala Gly Val
 370 375 380
 Val Gly Val Cys Leu Gly Gly Tyr Leu Met Glu Thr Thr Gly Ser Trp
 385 390 395 400
 Thr Cys Leu Phe Asn Leu Val Ala Ile Ile Ser Asn Leu Gly Leu Cys
 405 410 415
 Thr Phe Leu Val Phe Gly Gln Ala Gln Arg Val Asp Leu Ser Thr
 420 425 430
 His Glu Asp Leu
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<210> 15

<211> 1179

<212> DNA

<213> homo sapiens

<400> 15

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tgacccgtct	ccatgagcca	ggacttcggc	tggacaacaga	aggaggccgg	catcgtgctc	180
agcagcttct	tctgggggcta	ctgcctgaca	cagggttggtg	gcggccacct	cggggatcgg	240
attgggggtg	agaaggtcat	cctgctgtca	gcctctgcct	ggggctccat	cacggccgct	300
accaccactgc	tcgcccacat	gagcagtgcc	cacctggcct	tcatgacctt	ctcacgcctc	360
ctcatgggct	tgctccaagg	ggtttacttc	cctgcccctg	ccagcctgct	gtcgcagaag	420
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caagcagag	tcccctggag	acggctcttc	cggaaagcctg	ctgtctgggc	agccctgcgt	720
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tgcccgccgt	ttctgttttg	tgtggccaac	acagccgggg	ccttggcagg	tgaggggcgg	1140
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<210> 16
 <211> 392
 <212> PRT
 <213> homo sapiens

<400> 16
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 Cys Gln Ala Trp Thr Gly Thr Leu Leu Gly Thr Cys Leu Tyr
 20 25 30
 Cys Ala Arg Ser Ser Met Pro Ile Cys Thr Val Ser Met Ser Gln Asp
 35 40 45
 Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe
 50 55 60
 Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg
 65 70 75 80
 Ile Gly Gly Glu Lys Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser
 85 90 95
 Ile Thr Ala Val Thr Pro Leu Leu Ala His Leu Ser Ser Ala His Leu
 100 105 110
 Ala Phe Met Thr Phe Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val
 115 120 125
 Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser
 130 135 140
 Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly
 145 150 155 160
 Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly
 165 170 175
 Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val
 180 185 190
 Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu Lys Asp Leu Ile Leu Ala
 195 200 205
 Leu Gly Val Leu Ala Gln Ser Arg Pro Val Ser Arg His Ser Arg Val
 210 215 220
 Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala Val Trp Ala Ala Val Val
 225 230 235 240
 Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe Ile Leu Leu Ser Trp Leu
 245 250 255
 Pro Thr Phe Phe Glu Glu Thr Phe Pro Asp Ala Lys Gly Trp Ile Phe
 260 265 270
 Asn Val Val Pro Trp Leu Val Ala Ile Pro Ala Ser Leu Phe Ser Gly
 275 280 285
 Phe Leu Ser Asp His Leu Ile Asn Gln Gly Tyr Arg Ala Ile Thr Val
 290 295 300
 Arg Lys Leu Met Gln Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala
 305 310 315 320
 Leu Cys Leu Gly His Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala
 325 330 335
 Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val
 340 345 350
 Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val
 355 360 365
 Ala Asn Thr Ala Gly Ala Leu Ala Gly Glu Gly Arg Ala Ser Val Pro
 370 375 380
 Arg Ser Ser Pro Val Cys Gly Val
 385 390

<210> 17
 <211> 1197
 <212> DNA
 <213> homo sapiens

<400> 17

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cgctccacga	tgcccatctg	caccgtctcc	atgagccagg	acttcggctg	gaacaagaag	180
gaggcccgga	tcgtgctcag	cagcttcttc	tggggctact	gcttgacaca	ggttgtgggc	240
ggccacctcg	gggatccgat	tgggggtgag	aaggtcatcc	tgctgtcagc	ctctgacctg	300
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agcctgctgt	cgcagaaggt	gcgggagagt	gagcgagcct	tcacctacag	catcgtgggc	480
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ctctccagcg	tctttgctct	gtgctgtggc	cacacctcca	gcttctgtga	gtctgtgggt	1020
tttgcacag	cctccatcgt	ccctcagacc	ttcaaccaca	gtggcatttc	cgtaaacatc	1080
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<210> 18
 <211> 398
 <212> PRT
 <213> homo sapiens

<400> 18

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Gln	Trp	Ser	Arg	Pro	Glu	Cys	Gln	Ala	Trp	Thr	Gly	Thr	Leu	Leu	Leu
			20					25					30		
Gly	Thr	Cys	Leu	Leu	Tyr	Cys	Ala	Arg	Ser	Ser	Met	Pro	Ile	Cys	Thr
		35					40					45			
Val	Ser	Met	Ser	Gln	Asp	Phe	Gly	Trp	Asn	Lys	Lys	Glu	Ala	Gly	Ile
		50				55					60				
Val	Leu	Ser	Ser	Phe	Phe	Trp	Gly	Tyr	Cys	Leu	Thr	Gln	Val	Val	Gly
		65			70					75				80	
Gly	His	Leu	Gly	Asp	Arg	Ile	Gly	Gly	Glu	Lys	Val	Ile	Leu	Leu	Ser
			85						90					95	
Ala	Ser	Ala	Trp	Gly	Ser	Ile	Thr	Ala	Val	Thr	Pro	Leu	Leu	Ala	His
			100					105					110		
Leu	Ser	Ser	Ala	His	Leu	Ala	Phe	Met	Thr	Phe	Ser	Arg	Ile	Leu	Met
		115					120					125			
Gly	Leu	Leu	Gln	Gly	Val	Tyr	Phe	Pro	Ala	Leu	Thr	Ser	Leu	Leu	Ser
		130				135					140				
Gln	Lys	Val	Arg	Glu	Ser	Glu	Arg	Ala	Phe	Thr	Tyr	Ser	Ile	Val	Gly
		145				150				155					160
Ala	Gly	Ser	Gln	Phe	Gly	Thr	Leu	Leu	Thr	Gly	Ala	Val	Gly	Ser	Leu
			165						170					175	
Leu	Leu	Glu	Trp	Tyr	Gly	Trp	Gln	Ser	Ile	Phe	Tyr	Phe	Ser	Gly	Gly
		180						185						190	
Leu	Thr	Leu	Leu	Trp	Val	Trp	Tyr	Val	Tyr	Arg	Tyr	Leu	Leu	Ser	Glu
		195					200					205			
Lys	Asp	Leu	Ile	Leu	Ala	Leu	Gly	Val	Leu	Ala	Gln	Ser	Arg	Pro	Val
		210				215					220				
Ser	Arg	His	Ser	Arg	Val	Pro	Trp	Arg	Arg	Leu	Phe	Arg	Lys	Pro	Ala
		225			230					235					240
Val	Trp	Ala	Ala	Val	Val	Ser	Gln	Leu	Ser	Ala	Ala	Cys	Ser	Phe	Phe
			245						250					255	
Ile	Leu	Leu	Ser	Trp	Leu	Pro	Thr	Phe	Phe	Glu	Glu	Thr	Phe	Pro	Asp
		260					265					270			
Ala	Lys	Gly	Trp	Ile	Phe	Asn	Val	Val	Pro	Trp	Leu	Val	Ala	Ile	Pro
		275				280					285				

Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His Leu Ile Asn Gln Gly
 290 295 300
 Tyr Arg Ala Ile Thr Val Arg Lys Leu Met Gln Gly Met Gly Leu Gly
 305 310 315 320
 Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His Thr Ser Ser Phe Cys
 325 330 335
 Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn
 340 345 350
 His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala
 355 360 365
 Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu Ala Gly Glu
 370 375 380
 Gly Arg Ala Ser Val Pro Arg Ser Ser Pro Val Cys Gly Val
 385 390 395

<210> 19

<211> 855

<212> DNA

<213> homo sapiens

<400> 19

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tgacagctct	ccatgagcca	ggacttcggc	tggacaaga	aggaggccgg	catcgtgctc	180
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ctcatgggct	tgctccaagg	ggtttacttc	ctgcacctga	ccagcctgct	gtcgagaaag	420
gtcggggaga	gtgagcagag	cttcacattac	agcatcgtgg	gcgcccggctc	ccagtttggg	480
acgctgctga	cggggcggtg	gggtctccctg	ctcctggaat	ggtagcggtg	cgagagcatc	540
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cgggtttctc	ctcga					855

<210> 20

<211> 284

<212> PRT

<213> homo sapiens

<400> 20

Met Thr Leu Thr	Ser Arg	Arg Gln Asp	Ser Gln Glu Ala Arg	Pro Glu
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20	25	30		
Cys Ala Arg Ser	Ser Met	Pro Ile Cys	Thr Val Ser Met	Ser Gln Asp
35	40	45		
Phe Gly Trp Asn	Lys Lys	Glu Ala Gly	Ile Val Leu Ser	Ser Phe Phe
50	55	60		
Trp Gly Tyr Cys	Leu Thr	Gln Val Val Gly	Gly His Leu Gly	Asp Arg
65	70	75	80	
Ile Gly Gly Glu	Lys Val	Ile Leu Leu	Ser Ala Trp Gly	Ser
85	90	95		
Ile Thr Ala Val	Thr Pro	Leu Leu Ala	His Leu Ser	Ser Ala His Leu
100	105	110		
Ala Phe Met Thr	Phe Ser	Arg Ile	Leu Met Gly	Leu Leu Gln Gly Val
115	120	125		
Tyr Phe Pro	Ala Leu	Thr Ser	Leu Leu Ser	Gln Lys Val Arg Glu Ser
130	135	140		
Glu Arg Ala Phe	Thr Tyr	Ser Ile	Val Gly Ala	Gly Ser Gln Phe Gly
145	150	155	160	

Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly
 165 170 175
 Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val
 180 185 190
 Trp Tyr Val Tyr Arg Ser His Pro Gly Leu Gly Cys Pro Gly Pro Lys
 195 200 205
 Pro Ala Gly Val Gln Ala Gln Gln Ser Pro Leu Glu Thr Ala Leu Pro
 210 215 220
 Glu Ala Cys Cys Leu Gly Ser Arg Arg Leu Pro Ala Leu Cys Ser Leu
 225 230 235 240
 Leu Leu Leu His Pro Pro Leu Leu Ala Ala His Leu Leu Arg Gly Asp
 245 250 255
 Leu Pro Arg Arg Gln Gly Leu Asp Leu Gln Arg Gly Ser Leu Val Gly
 260 265 270
 Gly Asp Ser Gly Gln Ser Ile Gln Arg Val Ser Leu
 275 280

<210> 21

<211> 873

<212> DNA

<213> homo sapiens

<400> 21

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cgctccagca	tgcccatctg	caccgtctcc	atgagccagg	acttcggctg	gaacaagaag	180
gagggccgca	tcgtgtctcag	cagctctctc	tggggctact	gcctgacaca	ggttgtgggc	240
ggcaccctcg	gggatcggat	tgggggtgag	aaggtcatcc	tgctgtcagc	ctctgcctgg	300
ggctccatca	cgcccgctac	cccactgctc	gcccacctga	gcagtgcaca	cctggccttc	360
atgacctctc	cacgcatact	catgggcttg	ctccaagggg	tttactctcc	tgccctgacc	420
agcctgctgt	cgacagaagt	gcgggagagt	gagcgagcct	tcacctacag	catcgtgggc	480
gcgggctccc	agtttgggag	gtgctgacc	ggggcggtgg	gctccctgct	ctgggaatgg	540
tacggctggc	agagcatctt	ctattctccc	ggcgccctca	ccttgctttg	gggtgtgtac	600
gtgtacagat	ctcatctcgg	ccttggtgtg	cctggcccaa	agccggccgg	tgctcaggca	660
cagcagagtc	ccttgagagc	ggctcttccg	gaagcctgct	gtctggggag	ccgtcgtctc	720
ccagctctct	gcagcctgct	ccttcttcat	cctcctctcc	tgctgcacca	ccttcttcga	780
ggagaccttc	cccgcagcca	agggctggat	cttcaacgtg	gttccttggt	tggtggcgat	840
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<210> 22

<211> 290

<212> PRT

<213> homo sapiens

<400> 22

Met Gln Pro Pro Pro Asp Glu Ala Arg Arg Asp Met Ala Gly Asp Thr	
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Gln Trp Ser Arg Pro Glu Cys Gln Ala Trp Thr Gly Thr Leu Leu	
20 25 30	
Gly Thr Cys Leu Leu Tyr Cys Ala Arg Ser Ser Met Pro Ile Cys Thr	
35 40 45	
Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile	
50 55 60	
Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr Gln Val Val Gly	
65 70 75 80	
Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val Ile Leu Leu Ser	
85 90 95	
Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro Leu Leu Ala His	
100 105 110	
Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser Arg Ile Leu Met	
115 120 125	
Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser	
130 135 140	

Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly
 145 150 155 160
 Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala Val Gly Ser Leu
 165 170 175
 Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly
 180 185 190
 Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg Ser His Pro Gly Leu
 195 200 205
 Gly Cys Pro Gly Pro Lys Pro Ala Gly Val Gln Ala Gln Gln Ser Pro
 210 215 220
 Leu Glu Thr Ala Leu Pro Glu Ala Cys Cys Leu Gly Ser Arg Arg Leu
 225 230 235 240
 Pro Ala Leu Cys Ser Leu Leu Leu His Pro Pro Leu Leu Ala Ala
 245 250 255
 His Leu Leu Arg Gly Asp Leu Pro Arg Arg Gln Gly Leu Asp Leu Gln
 260 265 270
 Arg Gly Ser Leu Val Gly Gly Asp Ser Gly Gln Ser Ile Gln Arg Val
 275 280 285
 Ser Leu
 290

<210> 23

<211> 1293

<212> DNA

<213> homo sapiens

<400> 23

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tgacccgtct	ccatgagcca	ggacttcggc	tggacaacaga	aggaggccgg	catcgtgctc	180
agcagctctt	ctctggggcta	ctgcctgaca	caggttgttg	gcggccacct	cggggatcgg	240
attgggggtg	agaaggctat	cctgctgtca	gcctctgcct	ggggctccat	cacggccgtc	300
accccactgc	tcggcccaact	gagcagtgcc	cacctggcct	tcattgacct	ctcacgcatc	360
ctcatgggct	tgctccaagg	ggtttaactt	cctgccctga	ccagcctgct	gtcgagaaag	420
gtgcggggaga	gtgagcgagc	cttcacactac	agcatcgtgg	gcgcgggctc	ccagtttggtg	480
acgctgctga	ccggggcggt	gggctccctg	ctcctggaat	ggtacgggtg	gcagagcatc	540
ttctattttt	ccggcgggcct	caccttgctt	tggggtgtgt	acgtgtacag	gtacctgctg	600
agtgaanaag	atctcatcct	ggccttggtt	gtcctggccc	aaagccggcc	ggtgtccagg	660
cacagcagag	tcctctggag	acggctcttc	cggaagcctg	ctgtctgggc	agccgtcgct	720
tcaccagctt	ctgcagcctg	ctccttcttc	atcctcctct	cctggctgcc	caccttcttc	780
gaggagacct	tcctccgacg	caagggtctg	atcttcaacg	tggttctctg	gttggtggcg	840
attccggcca	gtctattcag	cgggtttctc	tctgatcatc	tcattcaatc	ggtttacaga	900
gcatcacagg	tcgggaagct	catgcagggc	atgggcccctg	gcctctccag	cgtctttgct	960
ctgtgctcgtg	gccacacctc	cagcttctgt	gagttctgtg	tccttgcac	agcctccatc	1020
gcgcctcaga	ccttcaacca	cagtggtcatt	ctgtttaaca	tccaggacct	ggcccgcgtc	1080
tgccgcggct	ttctgtttgg	tgtggccaac	acagccgggg	ccttggcagg	tgctgtgggt	1140
gtgtgtctag	gcggctactt	gatggagacc	acgggctcct	ggacttgctc	gttcaacctt	1200
gtggccatca	tcagcaacct	ggggctgtgc	accttctctg	tggttggaca	ggctcagagg	1260
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<210> 24

<211> 430

<212> PRT

<213> homo sapiens

<400> 24

Met Thr Leu Thr Ser Arg Arg Gln Asp Ser Gln Glu Ala Arg Pro Glu	1 5 10 15
Cys Gln Ala Trp Thr Gly Thr Leu Leu Leu Gly Thr Cys Leu Leu Tyr	20 25 30
Cys Ala Arg Ser Ser Met Pro Ile Cys Thr Val Ser Met Ser Gln Asp	35 40 45
Phe Gly Trp Asn Lys Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe	

50 55 60
 Trp Gly Tyr Cys Leu Thr Gln Val Val Gly Gly His Leu Gly Asp Arg
 65 70 75 80
 Ile Gly Gly Glu Lys Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser
 85 90 95
 Ile Thr Ala Val Thr Pro Leu Leu Ala His Leu Ser Ser Ala His Leu
 100 105 110
 Ala Phe Met Thr Phe Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val
 115 120 125
 Tyr Phe Pro Ala Leu Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser
 130 135 140
 Glu Arg Ala Phe Thr Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly
 145 150 155 160
 Thr Leu Leu Thr Gly Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly
 165 170 175
 Trp Gln Ser Ile Phe Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val
 180 185 190
 Trp Tyr Val Tyr Arg Tyr Leu Leu Ser Glu Lys Asp Leu Ile Leu Ala
 195 200 205
 Leu Gly Val Leu Ala Gln Ser Arg Pro Val Ser Arg His Ser Arg Val
 210 215 220
 Pro Trp Arg Arg Leu Phe Arg Lys Pro Ala Val Trp Ala Ala Val Val
 225 230 235 240
 Ser Gln Leu Ser Ala Ala Cys Ser Phe Phe Ile Leu Leu Ser Trp Leu
 245 250 255
 Pro Thr Phe Phe Glu Thr Phe Pro Asp Ala Lys Gly Trp Ile Phe
 260 265 270
 Asn Val Val Pro Trp Leu Val Ala Ile Pro Ala Ser Leu Phe Ser Gly
 275 280 285
 Phe Leu Ser Asp His Leu Ile Asn Gln Gly Tyr Arg Ala Ile Thr Val
 290 295 300
 Arg Lys Leu Met Gln Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala
 305 310 315 320
 Leu Cys Leu Gly His Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala
 325 330 335
 Ser Ala Ser Ile Gly Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val
 340 345 350
 Asn Ile Gln Asp Leu Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val
 355 360 365
 Ala Asn Thr Ala Gly Ala Leu Ala Gly Val Val Gly Val Cys Leu Gly
 370 375 380
 Gly Tyr Leu Met Glu Thr Thr Gly Ser Trp Thr Cys Leu Phe Asn Leu
 385 390 395 400
 Val Ala Ile Ile Ser Asn Leu Gly Leu Cys Thr Phe Leu Val Phe Gly
 405 410 415
 Gln Ala Gln Arg Val Asp Leu Ser Ser Thr His Glu Asp Leu
 420 425 430

<210> 25

<211> 1257

<212> DNA

<213> homo sapiens

<400> 25

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 cccgagtgcc aggcattggac ggggacgctg ctgctgggca cgtgccttct gtactcgcc 180
 cgctccagca tgcccattcg caccgtctcc atgagccagg acttcggctg gaacaagaag 240
 gaggccggca tcgtgctcag cagcttcttc tggggctact gcttgacaca ggttggtggc 300
 ggccacctcg gggtcggat tgggggtgag aaggtcatcc tgctgtcagc ctctgctgtg 360
 ggctccatca cgcccgctcac cccactgtct gcccaactga gcagtgccca cctggccttc 420
 atgaccttct cagcatctct catgggcttg ctccaagggg ttacttccc tgccctgacc 480
 agcctgtctg cgcagaaggt gcgggagagt gagcgagcct tcacctacag catcgtgggg 540

gcgcggctccc	agtttgggac	gctgctgacc	ggggcggtgg	gctccctgct	cctggaatgg	600
tacggctggc	agagcatctt	ctatttctcc	ggcgccctca	ccttgctttg	ggtgtggtac	660
gtgtacaggt	acctgctgag	tgaaaaagat	ctcatcctgg	ccttggtgtg	cctggcccaa	720
agccggccgg	tgctccaggca	cagcagatgc	ccctggagac	ggctctctcc	gaagcctgct	780
gtctgggcag	ccgtctcttc	ccagctctct	gcagcctgct	cctctctcat	cctcctctcc	840
tggctgccca	ccctctctca	ggagaccttc	cccgacgcca	agggctggat	cttcaactgc	900
gttcccttgg	tggtggcgat	tccggccagt	ctattcagcg	ggtttctctc	tgatcatctc	960
atcaatcagg	gttacagagc	catcacgggt	cggaagctca	tgcagggcac	gggccttgge	1020
ctctccagcg	tctttgctct	gtgcctgggc	cacacctcca	gctctgtgga	gtctgtggtc	1080
tttgcatcag	ctctccatcg	ctctccagac	ttaaccacac	gtggcatctc	tgtaacatct	1140
caggacttgg	ccccgtctct	cgccggcttt	ctgttttggt	tggccaacac	agccggggcc	1200
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<210> 26

<211> 418

<212> PRT

<213> homo sapiens

<400> 26

Met	Phe	Pro	Arg	Pro	Gly	Ala	Leu	Ser	Trp	Thr	Val	Arg	Arg	His	Thr
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Pro	Arg	Gln	Val	Glu	Pro	Pro	Cys	Val	Cys	Met	Thr	Leu	Thr	Ser	Arg
				20				25					30		
Arg	Gln	Asp	Ser	Gln	Glu	Ala	Arg	Pro	Glu	Cys	Gln	Ala	Trp	Thr	Gly
		35					40				45				
Thr	Leu	Leu	Leu	Gly	Thr	Cys	Leu	Leu	Tyr	Cys	Ala	Arg	Ser	Ser	Met
		50				55					60				
Pro	Ile	Cys	Thr	Val	Ser	Met	Ser	Gln	Asp	Phe	Gly	Trp	Asn	Lys	Lys
		65				70				75				80	
Glu	Ala	Gly	Ile	Val	Leu	Ser	Ser	Phe	Phe	Trp	Gly	Tyr	Cys	Leu	Thr
			85					90					95		
Gln	Val	Val	Gly	Gly	His	Leu	Gly	Asp	Arg	Ile	Gly	Gly	Glu	Lys	Val
			100				105						110		
Ile	Leu	Leu	Ser	Ala	Ser	Ala	Trp	Gly	Ser	Ile	Thr	Ala	Val	Thr	Pro
		115				120						125			
Leu	Leu	Ala	His	Leu	Ser	Ser	Ala	His	Leu	Ala	Phe	Met	Thr	Phe	Ser
		130				135					140				
Arg	Ile	Leu	Met	Gly	Leu	Leu	Gln	Gly	Val	Tyr	Phe	Pro	Ala	Leu	Thr
		145			150					155				160	
Ser	Leu	Leu	Ser	Gln	Lys	Val	Arg	Glu	Ser	Glu	Arg	Ala	Phe	Thr	Tyr
			165					170						175	
Ser	Ile	Val	Gly	Ala	Gly	Ser	Gln	Phe	Gly	Thr	Leu	Leu	Thr	Gly	Ala
		180						185					190		
Val	Gly	Ser	Leu	Leu	Leu	Glu	Trp	Tyr	Gly	Trp	Gln	Ser	Ile	Phe	Tyr
		195				200						205			
Phe	Ser	Gly	Gly	Leu	Thr	Leu	Leu	Trp	Val	Trp	Tyr	Val	Tyr	Arg	Tyr
		210				215					220				
Leu	Leu	Ser	Glu	Lys	Asp	Leu	Ile	Leu	Ala	Leu	Gly	Val	Leu	Ala	Gln
		225			230				235					240	
Ser	Arg	Pro	Val	Ser	Arg	His	Ser	Arg	Val	Pro	Trp	Arg	Arg	Leu	Phe
			245					250						255	
Arg	Lys	Pro	Ala	Val	Trp	Ala	Ala	Val	Val	Ser	Gln	Leu	Ser	Ala	Ala
			260				265						270		
Cys	Ser	Phe	Phe	Ile	Leu	Leu	Ser	Trp	Leu	Pro	Thr	Phe	Phe	Glu	Glu
		275				280						285			
Thr	Phe	Pro	Asp	Ala	Lys	Gly	Trp	Ile	Phe	Asn	Val	Val	Pro	Trp	Leu
		290				295				300					
Val	Ala	Ile	Pro	Ala	Ser	Leu	Phe	Ser	Gly	Phe	Leu	Ser	Asp	His	Leu
		305			310				315					320	
Ile	Asn	Gln	Gly	Tyr	Arg	Ala	Ile	Thr	Val	Arg	Lys	Leu	Met	Gln	Gly
			325					330					335		
Met	Gly	Leu	Gly	Leu	Ser	Ser	Val	Phe	Ala	Leu	Cys	Leu	Gly	His	Thr
		340				345						350			

Ser Ser Phe Cys Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly Leu
 355 360 365
 Gln Thr Phe Asn His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala
 370 375 380
 Pro Ser Cys Ala Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala
 385 390 395 400
 Leu Ala Gly Glu Gly Arg Ala Ser Val Pro Arg Ser Ser Pro Val Cys
 405 410 415
 Gly Val

<210> 27
 <211> 1068
 <212> DNA
 <213> homo sapiens

<400> 27
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 ggggatcggg ttgggggtga gaaggtcatc ctgctgtcag cctctgctcg gggtcctcatt 180
 acggccgtca ccccaactgt cgcccaactg agcagtgccc acctggcctt catgaccttc 240
 tcacgcatcc tcatgggctt gctccaaggg gtttacttcc ctgcccctgac cagcctgtgtg 300
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 cagtttggga cgtctgtgac cggggcggtg ggctccctgc tcttggaaatg gtacggctgg 420
 cagagcatct tctatttctc cggcgccctc acctgtcttt ggggtgggta cgtgtacagg 480
 tactctgtga gtgaaaaaga tctcatcttg gccttgggtg tccctggcca aagccggccg 540
 gtgtccaggc acagcagagt cccctggaga cggctctctc ggaagcctgc tgtctgggca 600
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 gccctcatcg gccctccagac cttcaaccac agtggcattt ctgttaacat ccaggacttg 960
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<210> 28
 <211> 355
 <212> PRT
 <213> homo sapiens

<400> 28
 Met Pro Ile Cys Thr Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys
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 Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu
 20 25 30
 Thr Gln Val Val Gly Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys
 35 40 45
 Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr
 50 55 60
 Pro Leu Leu Ala His Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe
 65 70 75 80
 Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu
 85 90 95
 Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr
 100 105 110
 Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly
 115 120 125
 Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe
 130 135 140
 Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val Trp Tyr Val Tyr Arg
 145 150 155 160
 Tyr Leu Leu Ser Glu Lys Asp Leu Ile Leu Ala Leu Gly Val Leu Ala

165 170 175
 Gln Ser Arg Pro Val Ser Arg His Ser Arg Val Pro Trp Arg Arg Leu
 180 185 190
 Phe Arg Lys Pro Ala Val Trp Ala Ala Val Val Ser Gln Leu Ser Ala
 195 200 205
 Ala Cys Ser Phe Phe Ile Leu Leu Ser Trp Leu Pro Thr Phe Phe Glu
 210 215 220
 Glu Thr Phe Pro Asp Ala Lys Gly Trp Ile Phe Asn Val Val Pro Trp
 225 230 235 240
 Leu Val Ala Ile Pro Ala Ser Leu Phe Ser Gly Phe Leu Ser Asp His
 245 250 255
 Leu Ile Asn Gln Gly Tyr Arg Ala Ile Thr Val Arg Lys Leu Met Gln
 260 265 270
 Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His
 275 280 285
 Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly
 290 295 300
 Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu
 305 310 315 320
 Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly
 325 330 335
 Ala Leu Ala Gly Glu Gly Arg Ala Ser Val Pro Arg Ser Ser Pro Val
 340 345 350
 Cys Gly Val
 355

<210> 29

<211> 933

<212> DNA

<213> homo sapiens

<400> 29

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cccgagtgcc	aggcatggac	ggggacgctg	ctgctgggca	cgctgcctct	gtactgcgcc	180
cgctccagca	tgcccatctg	caccgtctcc	atgagccagg	acttcggctg	gaacaagaag	240
gaggccggca	tcgtgctcag	cagcttcttc	tggggctact	gcctgacaca	ggttgtgggc	300
ggccacctcg	gggatcggat	tgggggtgag	aaggctcctc	tgctgtcagc	ctctgtcctg	360
ggctccatca	cgcccgctac	cccactgctc	gcccacctga	gcagtgcccc	cctggccttc	420
atgacctct	cacgcatect	catgggcttg	ctccaagggg	tttacttccc	tgccctgacc	480
agcctgtgt	cgacagaagt	gcgaggagat	gagcgagcct	tcacctacag	catcgtgggc	540
gccggctccc	agtttgggac	gctgctgacc	ggggcggtgg	gctccctgct	cctgggaatgg	600
tacggctggc	agagcatctt	ctatttctcc	ggcgccctca	ccttgctttg	ggtgtgtgtac	660
gtgtacagat	ctcatcctgg	ccttggtgtg	ctctggcccaa	agccggcgcg	gttcacaggca	720
cagcagagtc	ccctggagac	ggctcttccg	gaagcctgct	gtctggggcg	ccgtcgtctc	780
ccagctctct	gcagcctgct	ccttcttcat	ctctctctcc	tggtgcacca	ccttcttcga	840
ggagaccttc	cccgacgcca	agggtcggat	cttcaacgtg	gttctcttgt	tggtgctgat	900
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<210> 30

<211> 310

<212> PRT

<213> homo sapiens

<400> 30

Met	Phe	Pro	Arg	Pro	Gly	Ala	Leu	Ser	Trp	Thr	Val	Arg	Arg	His	Thr
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Pro	Arg	Gln	Val	Glu	Pro	Pro	Cys	Val	Cys	Met	Thr	Leu	Thr	Ser	Arg
			20					25						30	
Arg	Gln	Asp	Ser	Gln	Glu	Ala	Arg	Pro	Glu	Cys	Gln	Ala	Trp	Thr	Gly
			35				40					45			
Thr	Leu	Leu	Leu	Gly	Thr	Cys	Leu	Leu	Tyr	Cys	Ala	Arg	Ser	Ser	Met
	50				55				60						

Pro Ile Cys Thr Val Ser Met Ser Gln Asp Phe Gly Trp Asn Lys Lys
65 70 75 80
Glu Ala Gly Ile Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu Thr
85 90 95
Gln Val Val Gly Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys Val
100 105 110
Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr Pro
115 120 125
Leu Leu Ala His Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe Ser
130 135 140
Arg Ile Leu Met Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu Thr
145 150 155 160
Ser Leu Leu Ser Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr Tyr
165 170 175
Ser Ile Val Gly Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly Ala
180 185 190
Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe Tyr
195 200 205
Phe Ser Gly Gly Leu Thr Leu Leu Trp Val Tyr Val Tyr Arg Ser
210 215 220
His Pro Gly Leu Gly Cys Pro Gly Pro Lys Pro Ala Gly Val Gln Ala
225 230 235 240
Gln Gln Ser Pro Leu Glu Thr Ala Leu Pro Glu Ala Cys Cys Leu Gly
245 250 255
Ser Arg Arg Leu Pro Ala Leu Cys Ser Leu Leu Leu Leu His Pro Pro
260 265 270
Leu Leu Ala Ala His Leu Leu Arg Gly Asp Leu Pro Arg Arg Gln Gly
275 280 285
Leu Asp Leu Gln Arg Gly Ser Leu Val Gly Gly Asp Ser Gly Gln Ser
290 295 300
Ile Gln Arg Val Ser Leu
305 310

<210> 31
<211> 744
<212> DNA
<213> homo sapiens

<400> 31
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ggggatcggga ttgggggtga gaaggtcatc ctgctgtcag cctctgcttg gggtccattc 180
acggccgttca cccactgtct cggccacctg agcagtgccc acctggcctt catgaccttc 240
tcacgcatcc tcattgggctt gctccaaggg gtttacttcc ctgcccgtac cagcctgtctg 300
tcgcagaagg tcggggagag tgagcgagcc ttcacctaca gcattgttgg cgccggctcc 360
cagtttggga cgtgctgac cggggcggtg ggctccctgc tcctggaatg gtacggctgg 420
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cccttgagga cggctcttcc ggaagcctgc tgtctgggca gccctcgctc ccagctctc 600
tgacgctgct tcctttctca tcctctctc ctggctgccc accttcttcg aggagacctt 660
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tctattcagc gggtttctct ctga 744

<210> 32
<211> 247
<212> PRT
<213> homo sapiens

<400> 32
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Lys Glu Ala Gly Ile Val Leu Ser Ser Phe Phe Trp Gly Tyr Cys Leu
20 25 30

Thr Gln Val Val Gly Gly His Leu Gly Asp Arg Ile Gly Gly Glu Lys
 35 40 45
 Val Ile Leu Leu Ser Ala Ser Ala Trp Gly Ser Ile Thr Ala Val Thr
 50 55 60
 Pro Leu Leu Ala His Leu Ser Ser Ala His Leu Ala Phe Met Thr Phe
 65 70 75 80
 Ser Arg Ile Leu Met Gly Leu Leu Gln Gly Val Tyr Phe Pro Ala Leu
 85 90 95
 Thr Ser Leu Leu Ser Gln Lys Val Arg Glu Ser Glu Arg Ala Phe Thr
 100 105 110
 Tyr Ser Ile Val Gly Ala Gly Ser Gln Phe Gly Thr Leu Leu Thr Gly
 115 120 125
 Ala Val Gly Ser Leu Leu Leu Glu Trp Tyr Gly Trp Gln Ser Ile Phe
 130 135 140
 Tyr Phe Ser Gly Gly Leu Thr Leu Leu Trp Val Tyr Tyr Val Tyr Arg
 145 150 155 160
 Ser His Pro Gly Leu Gly Cys Pro Gly Pro Lys Pro Ala Gly Val Gln
 165 170 175
 Ala Gln Gln Ser Pro Leu Glu Thr Ala Leu Pro Glu Ala Cys Cys Leu
 180 185 190
 Gly Ser Arg Arg Leu Pro Ala Leu Cys Ser Leu Leu His Pro
 195 200 205
 Pro Leu Leu Ala Ala His Leu Leu Arg Gly Asp Leu Pro Arg Arg Gln
 210 215 220
 Gly Leu Asp Leu Gln Arg Gly Ser Leu Val Gly Gly Asp Ser Gly Gln
 225 230 235 240
 Ser Ile Gln Arg Val Ser Leu
 245

<210> 33
 <211> 1371
 <212> DNA
 <213> homo sapiens

<400> 33
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 cccgagtgcc aggcagtgac ggggacgctg ctgctgggca cgtgcctctt gtactgcgcc 180
 cgctccagca tgcccatctg caccgtctcc atgagccagg acttcggctg gaacaagaag 240
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<210> 34
 <211> 456
 <212> PRT
 <213> homo sapiens

<400> 34

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			20					25					30		
Arg	Gln	Asp	Ser	Gln	Glu	Ala	Arg	Pro	Glu	Cys	Gln	Ala	Trp	Thr	Gly
		35					40					45			
Thr	Leu	Leu	Leu	Gly	Thr	Cys	Leu	Leu	Tyr	Cys	Ala	Arg	Ser	Ser	Met
	50					55					60				
Pro	Ile	Cys	Thr	Val	Ser	Met	Ser	Gln	Asp	Phe	Gly	Trp	Asn	Lys	Lys
65				70					75						80
Glu	Ala	Gly	Ile	Val	Leu	Ser	Ser	Phe	Trp	Gly	Tyr	Cys	Leu	Thr	
			85					90					95		
Gln	Val	Val	Gly	Gly	His	Leu	Gly	Asp	Arg	Ile	Gly	Gly	Glu	Lys	Val
			100					105					110		
Ile	Leu	Leu	Ser	Ala	Ser	Ala	Trp	Gly	Ser	Ile	Thr	Ala	Val	Thr	Pro
		115					120					125			
Leu	Leu	Ala	His	Leu	Ser	Ser	Ala	His	Leu	Ala	Phe	Met	Thr	Phe	Ser
		130					135				140				
Arg	Ile	Leu	Met	Gly	Leu	Leu	Gln	Gly	Val	Tyr	Phe	Pro	Ala	Leu	Thr
145				150						155					160
Ser	Leu	Leu	Ser	Gln	Lys	Val	Arg	Glu	Ser	Glu	Arg	Ala	Phe	Thr	Tyr
				165					170					175	
Ser	Ile	Val	Gly	Ala	Gly	Ser	Gln	Phe	Gly	Thr	Leu	Leu	Thr	Gly	Ala
			180					185					190		
Val	Gly	Ser	Leu	Leu	Leu	Glu	Trp	Tyr	Gly	Trp	Gln	Ser	Ile	Phe	Tyr
		195					200					205			
Phe	Ser	Gly	Gly	Leu	Thr	Leu	Leu	Trp	Val	Trp	Tyr	Val	Tyr	Arg	Tyr
		210				215					220				
Leu	Leu	Ser	Glu	Lys	Asp	Leu	Ile	Leu	Ala	Leu	Gly	Val	Leu	Ala	Gln
225					230					235					240
Ser	Arg	Pro	Val	Ser	Arg	His	Ser	Arg	Val	Pro	Trp	Arg	Arg	Leu	Phe
				245					250					255	
Arg	Lys	Pro	Ala	Val	Trp	Ala	Ala	Val	Val	Ser	Gln	Leu	Ser	Ala	Ala
			260					265					270		
Cys	Ser	Phe	Phe	Ile	Leu	Leu	Ser	Trp	Leu	Pro	Thr	Phe	Phe	Glu	Glu
		275					280					285			
Thr	Phe	Pro	Asp	Ala	Lys	Gly	Trp	Ile	Phe	Asn	Val	Val	Pro	Trp	Leu
		290				295					300				
Val	Ala	Ile	Pro	Ala	Ser	Leu	Phe	Ser	Gly	Phe	Leu	Ser	Asp	His	Leu
305					310					315					320
Ile	Asn	Gln	Gly	Tyr	Arg	Ala	Ile	Thr	Val	Arg	Lys	Leu	Met	Gln	Gly
				325					330					335	
Met	Gly	Leu	Gly	Leu	Ser	Ser	Val	Phe	Ala	Leu	Cys	Leu	Gly	His	Thr
			340					345					350		
Ser	Ser	Phe	Cys	Glu	Ser	Val	Val	Phe	Ala	Ser	Ala	Ser	Ile	Gly	Leu
		355					360					365			
Gln	Thr	Phe	Asn	His	Ser	Gly	Ile	Ser	Val	Asn	Ile	Gln	Asp	Leu	Ala
		370				375					380				
Pro	Ser	Cys	Ala	Gly	Phe	Leu	Phe	Gly	Val	Ala	Asn	Thr	Ala	Gly	Ala
385					390					395					400
Leu	Ala	Gly	Val	Val	Gly	Val	Cys	Leu	Gly	Gly	Tyr	Leu	Met	Glu	Thr
			405						410					415	
Thr	Gly	Ser	Trp	Thr	Cys	Leu	Phe	Asn	Leu	Val	Ala	Ile	Ile	Ser	Asn
		420						425					430		
Leu	Gly	Leu	Cys	Thr	Phe	Leu	Val	Phe	Gly	Gln	Ala	Gln	Arg	Val	Asp
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Leu	Ser	Ser	Thr	His	Glu	Asp	Leu								
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<210> 35

<211> 1182

<212> DNA

<213> homo sapiens

<400> 35

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acggccgtca	ccccactgct	cgccccactg	agcagtgcgc	acctggcctt	catgaccttc	240
tcacgcattc	tcattgggctt	gtcccaaggg	gtttacttcc	ctgccccctg	cagcctgtctg	300
tcgcagaagg	tgccggagag	tgagcgagcc	ttcacctaca	gcacgtgtgg	cgccggctcc	360
cagttttggga	cgctgctgac	cgggcggtg	ggctccctgc	tccttgaagt	gtacggctgg	420
cagagcatct	tctatttctc	cgccggcctc	accttgcctt	gggtgtggta	cggttacagg	480
tacctgtctga	gtgaaaaaga	tctcatcctg	gccttgggtg	tcctggccca	aagccggccg	540
gtgtccaggc	acagcagagt	ccccctggga	cggtctcttc	ggaagcctgc	tgctggggca	600
gccgtctctc	cccagctctc	tcagcctgc	tccttcttca	tcctctctc	ctggctgccc	660
accttctctg	aggagacctt	ccccgacgcc	aagggtctga	tcctcaacgt	gggtccttgg	720
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ggttacagag	ccatcacggt	gcggaagctc	atgcagggca	tgggccttgg	cctctccagc	840
gtctttgtct	tggtcctggg	ccacacctcc	agcttctgtg	agctctgtgt	ctttgcatca	900
gcttcctcag	gcctccagag	cttcaaccac	agtggtcattt	ctgttaacat	ccaggacttg	960
gcccctctct	gcgcctgttg	tctgtttggg	gtggccaaca	cagccggggc	cttggcaggt	1020
tcgtgtgggt	tggtgtctag	cggtctactg	atggagacca	cggtctcctg	gacttgcctg	1080
ttcaaccttg	tggtccatcat	cagcaacctg	gggtgtgtca	ccttctctgt	gtttggacag	1140
gctcagaggg	tggtacctgag	ctctacccat	gaggacctct	ag		1182

<210> 36

<211> 393

<212> PRT

<213> homo sapiens

<400> 36

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Lys	Glu	Ala	Gly	Ile	Val	Leu	Ser	Ser	Phe	Phe	Trp	Gly	Tyr	Cys	Leu
			20					25					30		
Thr	Gln	Val	Val	Gly	Gly	His	Leu	Gly	Asp	Arg	Ile	Gly	Gly	Glu	Lys
			35				40					45			
Val	Ile	Leu	Leu	Ser	Ala	Ser	Ala	Trp	Gly	Ser	Ile	Thr	Ala	Val	Thr
			50			55					60				
Pro	Leu	Leu	Ala	His	Leu	Ser	Ser	Ala	His	Leu	Ala	Phe	Met	Thr	Phe
65					70				75					80	
Ser	Arg	Ile	Leu	Met	Gly	Leu	Leu	Gln	Gly	Val	Tyr	Phe	Pro	Ala	Leu
			85					90						95	
Thr	Ser	Leu	Leu	Ser	Gln	Lys	Val	Arg	Glu	Ser	Glu	Arg	Ala	Phe	Thr
			100					105					110		
Tyr	Ser	Ile	Val	Gly	Ala	Gly	Ser	Gln	Phe	Gly	Thr	Leu	Leu	Thr	Gly
			115			120						125			
Ala	Val	Gly	Ser	Leu	Leu	Leu	Glu	Trp	Tyr	Gly	Trp	Gln	Ser	Ile	Phe
			130			135					140				
Tyr	Phe	Ser	Gly	Gly	Leu	Thr	Leu	Leu	Trp	Val	Trp	Tyr	Val	Tyr	Arg
145					150				155						160
Tyr	Leu	Leu	Ser	Glu	Lys	Asp	Leu	Ile	Leu	Ala	Leu	Gly	Val	Leu	Ala
			165					170					175		
Gln	Ser	Arg	Pro	Val	Ser	Arg	His	Ser	Arg	Val	Pro	Trp	Arg	Arg	Leu
			180					185					190		
Phe	Arg	Lys	Pro	Ala	Val	Trp	Ala	Ala	Val	Val	Ser	Gln	Leu	Ser	Ala
			195				200					205			
Ala	Cys	Ser	Phe	Phe	Ile	Leu	Leu	Ser	Trp	Leu	Pro	Thr	Phe	Phe	Glu
			210			215					220				
Glu	Thr	Phe	Pro	Asp	Ala	Lys	Gly	Trp	Ile	Phe	Asn	Val	Val	Pro	Trp
225					230				235						240
Leu	Val	Ala	Ile	Pro	Ala	Ser	Leu	Phe	Ser	Gly	Phe	Leu	Ser	Asp	His
			245					250						255	
Leu	Ile	Asn	Gln	Gly	Tyr	Arg	Ala	Ile	Thr	Val	Arg	Lys	Leu	Met	Gln

260 265 270
 Gly Met Gly Leu Gly Leu Ser Ser Val Phe Ala Leu Cys Leu Gly His
 275 280 285
 Thr Ser Ser Phe Cys Glu Ser Val Val Phe Ala Ser Ala Ser Ile Gly
 290 295 300
 Leu Gln Thr Phe Asn His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu
 305 310 315 320
 Ala Pro Ser Cys Ala Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly
 325 330 335
 Ala Leu Ala Gly Val Val Gly Val Cys Leu Gly Gly Tyr Leu Met Glu
 340 345 350
 Thr Thr Gly Ser Trp Thr Cys Leu Phe Asn Leu Val Ala Ile Ile Ser
 355 360 365
 Asn Leu Gly Leu Cys Thr Phe Leu Val Phe Gly Gln Ala Gln Arg Val
 370 375 380
 Asp Leu Ser Ser Thr His Glu Asp Leu
 385 390

<210> 37
 <211> 1428
 <212> DNA
 <213> homo sapiens

<400> 37
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 ggcatctggca gtctactgcc atggaacttc ttatcactg ccaaggagta ctggatgttc 240
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 aactactttg agagctacct tgcggttgcc tccaccgtgc cctccatgtc gtgcctgttg 360
 gccaaacttc tgctgtgcaa cagggttgca gtccacatcc gtgtccttgc ctactgagcg 420
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<210> 38
 <211> 475
 <212> PRT
 <213> homo sapiens

<400> 38
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 Tyr Gly Thr Thr Ser Ser Ser Leu Arg Ala Asp Gln Glu Ala Leu Leu
 20 25 30
 Glu Lys Leu Leu Asp Arg Pro Pro Gly Leu Gln Arg Pro Glu Asp
 35 40 45
 Arg Phe Cys Gly Thr Tyr Ile Ile Phe Phe Ser Leu Gly Ile Gly Ser
 50 55 60

Leu Leu Pro Trp Asn Phe Phe Ile Thr Ala Lys Glu Tyr Trp Met Phe
 65 70 75 80
 Lys Leu Arg Asn Ser Ser Ser Pro Ala Thr Gly Glu Asp Pro Glu Gly
 85 90 95
 Ser Asp Ile Leu Asn Tyr Phe Glu Ser Tyr Leu Ala Val Ala Ser Thr
 100 105 110
 Val Pro Ser Met Leu Cys Leu Val Ala Asn Phe Leu Leu Val Asn Arg
 115 120 125
 Val Ala Val His Ile Arg Val Leu Ala Ser Leu Thr Val Ile Leu Ala
 130 135 140
 Ile Phe Met Val Ile Thr Ala Leu Val Lys Val Asp Thr Phe Ser Trp
 145 150 155 160
 Thr Arg Gly Phe Phe Ala Val Thr Ile Val Cys Met Val Ile Leu Ser
 165 170 175
 Gly Ala Ser Thr Val Phe Ser Ser Ser Ile Tyr Gly Met Thr Gly Ser
 180 185 190
 Phe Pro Met Arg Asn Ser Gln Ala Leu Ile Ser Gly Gly Ala Met Gly
 195 200 205
 Gly Thr Val Ser Ala Val Ala Ser Leu Val Asp Leu Ala Ala Ser Ser
 210 215 220
 Asp Val Arg Asn Ser Ala Leu Ala Phe Phe Leu Thr Ala Thr Ile Phe
 225 230 235 240
 Leu Val Leu Cys Met Gly Leu Tyr Leu Leu Ser Arg Leu Glu Tyr
 245 250 255
 Ala Arg Tyr Tyr Met Arg Pro Val Leu Ala Ala His Val Phe Ser Gly
 260 265 270
 Glu Glu Glu Leu Pro Gln Asp Ser Leu Ser Ala Pro Ser Val Ala Ser
 275 280 285
 Arg Phe Ile Asp Ser His Thr Pro Pro Leu Arg Pro Ile Leu Lys Lys
 290 295 300
 Thr Ala Ser Leu Gly Phe Cys Val Thr Tyr Val Phe Phe Ile Thr Ser
 305 310 315 320
 Leu Ile Tyr Pro Ala Val Cys Thr Asn Ile Glu Ser Leu Asn Lys Gly
 325 330 335
 Ser Gly Ser Leu Trp Thr Thr Lys Phe Phe Ile Pro Leu Thr Thr Phe
 340 345 350
 Leu Leu Tyr Asn Phe Ala Asp Leu Cys Gly Arg Gln Leu Thr Ala Trp
 355 360 365
 Ile Gln Val Pro Gly Pro Asn Ser Lys Ala Leu Pro Gly Phe Val Leu
 370 375 380
 Leu Arg Thr Cys Leu Ile Pro Leu Phe Val Leu Cys Asn Tyr Gln Pro
 385 390 395 400
 Arg Val His Leu Lys Thr Val Val Phe Gln Ser Asp Val Tyr Pro Ala
 405 410 415
 Leu Leu Ser Ser Leu Leu Gly Leu Ser Asn Gly Tyr Leu Ser Thr Leu
 420 425 430
 Ala Leu Leu Tyr Gly Pro Lys Ile Val Pro Arg Glu Leu Ala Glu Ala
 435 440 445
 Thr Gly Val Val Met Ser Phe Tyr Val Cys Leu Gly Leu Thr Leu Gly
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 465 470 475

<210> 39

<211> 2316

<212> DNA

<213> Homo sapiens

<400> 39

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60
 120

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caggatcagga	cggggacgct	gctgctgggc	acgtgccttc	tgactgcgcg	cgcctccagc	300
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